

**STRENGTHENING THE IMPLEMENTATION OF THE ECE CONVENTION ON
LONG-RANGE TRANSBOUNDARY AIR POLLUTION IN EASTERN EUROPE,
THE CAUCASUS AND CENTRAL ASIA (EECCA)**

Evaluation Report

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LIST OF ACRONYMS

BAT	Best Available Techniques
CCAC	Climate and Clean Air Coalition
CLRTAP	Convention of Long-Range Transboundary Air Pollution (Air Convention)
EECCA	Eastern Europe, the Caucasus and Central Asia
ELV	Emission Limit Value
EMEP	The Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe
EEA	European Environmental Agency
ERICC	Emissions Reduction Investment and Cost Calculation Methodology
GAINS	Greenhouse Gas - Air Pollution Interactions and Synergies model
IIR	Informative Inventory Reports
IMIS	Integrated Multi-sectoral Information Systems
KII	Key Informant Interview
NFR	Nomenclature For Reporting
SDGs	Sustainable Development Goals
TFEIP	Task Force on Emission Inventories and Projections
UNECE	UN Economic Commission for Europe
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

Consistent with its mandate, UNECE runs a comprehensive assistance programme to strengthen the implementation and ratification of the Convention on Long-range Transboundary Air Pollution and its protocols in Eastern Europe, the Caucasus and Central Asia. The project “Strengthening the implementation of the UNECE Convention on long-range transboundary air pollution in Eastern Europe, the Caucasus and Central Asia” was launched to respond to the mandate, and to specifically develop national emission inventories and improve skills of managing air quality in the following EECCA countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Tajikistan, Ukraine, and Uzbekistan, representatives of national authorities involved in the implementation of the Convention and members of the Coordinating Group on the promotion of actions towards implementation of the Convention. It was financed by the Russian Federation with a total amount of \$ 435,000 USD.

The purpose of the evaluation was to review the implementation of and assess the extent to which the objectives of the Project had been met. The evaluation covered the Project implementation period from 2015 to 2018 and assessed the relevance, effectiveness, efficiency, sustainability and impact of the project.

The evaluation was conducted between December 2018 and May 2019 by an external evaluation expert and covered beneficiaries from the above mentioned EECCA countries, as well as experts from UNECE, and the Russian Federation in charge of project implementation and management. A mixed-method approach was applied which incorporated quantitative and qualitative data gathering and analysis. The evaluation was carried out through 1) desk study of background documents; 2) electronic survey targeting 43 individuals (participants of national and regional trainings and CLRTAP Focal Points, with a 48% response rate), and 3) four (4) key informant interviews.

The evaluation revealed positive findings with regards to project’s relevance, effectiveness, and efficiency, as well as a high likelihood of sustaining its achievements. The evaluation has confirmed UNECE’s self-assessment that the activities to support countries in Eastern Europe, the Caucasus and Central Asia in the implementation of the Air Convention during project implementation period (2015 – 2018), specifically in relation to reporting of emission inventories, have led to significant progress in this regard. As noted by respondents to the survey, national experts and consultants in Key Informant Interviews (KIIs), the most tangible outcome and output of the project were the improved capacity of national experts to prepare emission data tables and Informative Inventory Reports (IIR), and actual submissions of the reports. Multiple responses in the online survey and KIIs highlighted that implementation of the project activities resulted in enhanced skills of emission experts of Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan in developing and improving the national emission inventories in accordance with the requirements of the Convention and in preparing related reports.

Relevance: Document reviews and online surveys indicated that the project was very relevant as an integral part of UNECE regional activities, responding to its work programme and specific needs and priorities of the beneficiary countries in the area of the air quality management. The right to clean air is stipulated by numerous international agreements: The Air Convention¹, Sustainable Development Goals (in particular SDG 3 on good health and well-being (targets 3.4 and 3.9), SDG 11 on sustainable cities and communities (target 11.4) and SDG 12 on sustainable consumption and production (targets 12.2, 12.4)², Report of the Special Rapporteur on Human Rights and Development³, the Minamata

¹ <http://www.unece.org/env/lrtap/welcome.html.html>

² <https://www.iso.org/sdg03.html>

³ <https://www.ohchr.org/EN/Issues/Environment/SREnvironment/Pages/SREnvironmentIndex.aspx>

Convention⁴ and others.⁵ The evaluation found that most of these provisions were integrated in the project.

Key obstacles and challenges to effective implementation found by the evaluation included low level of support from decision-makers; limited supporting documentation, absence of or vague definition of national policies in this sphere, reorganization of state agencies and frequent change of key personnel, and limited expert potential.

Effectiveness: The evaluation found that the project design, systematic and skillful execution of development interventions resulted in overall project's effectiveness responding to the desired objectives:

(EA1) Emissions inventories developed in countries of Eastern Europe, the Caucasus and Central Asia in accordance with the Guidelines for estimating and reporting emission data under the Convention and the EMEP/EEA Air pollutant emission inventory guidebook;

(EA2) Promotion of ratification and implementation of the Convention and its key Protocols; and

(EA3) Enhanced outcomes of the work of the Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia.

Sustainability: Vast majority of beneficiaries (more than 7 in 10 in the online survey) felt confident that their leading government agencies had the necessary knowledge and capacities to take over and to sustain project achievements. Those who were skeptical about readiness of their key national air quality management institutions to sustain the project results, cited frequent staff turnover in the relevant ministries and general instability in the beneficiary countries as risks to ensuring sustainability of project outcomes.

Efficiency: After the delay of the planned start of the project by six months, the Project was implemented efficiently and in accordance with the overall timeline. Although considered insufficient, the 25% budget allocation for staff salary during the three years of project implementation, was complemented by HR time from other support and capacity building projects funded by several donors. Beneficiaries did not perceive any inefficiencies, and were overall satisfied.

Evaluation concludes that as evidenced by familiarity of the key beneficiaries with the project objective, and broader stream of work under UNECE with regards to the Convention and their overall positive assessment of the type of interventions, project design and fidelity to it during implementation were a success, and interventions were relevant for meeting the project objectives.

Building on the findings and conclusions, *recommendations* intend to provide a vision for design and setting objectives for **Phase II and** similar projects:

A. Given UNECE's convening power and mandate, UNECE can facilitate involving and engaging with a broader range of key stakeholders/decision makers that could advance the Air Convention priorities more effectively.

B. UNECE should collaboratively work on adaptability of the tools and methodologies to the regional and national contexts. Furthermore, UNECE may consider diversifying the portfolio of products covered in subsequent workshops and seminars, to include Greenhouse Gas - Air Pollution Interactions and Synergies (GAINS)⁶ and COPERT⁷ models and the like.

⁴ [The Minamata Convention on Mercury](#) is an international [treaty](#) designed to protect human health and the environment from anthropogenic emissions and releases of [mercury](#) and mercury compounds.

⁶ <http://gains.iiasa.ac.at/models/>

⁷ <https://www.emisia.com/utilities/copert/documentation/>

C. There is a continued need for awareness raising about the Convention and its protocols on the environmental and health effects of air pollution as well as modalities of engagement and benefits. Using well-substantiated and clear-cut messages about adaptability of the tools to national contexts could help better sensitize politicians about the advantages of the Convention and encourage them to internalize this knowledge for further actions.

D. UNECE should consider opportunities to enhance and strengthen accountability mechanisms to expedite ratification of protocols under Convention where protocols have not been ratified. The establishment of such mechanisms, including international standards and procedures, could ensure sustainability and the continuity of efforts and facilitate the development of national road maps.

E. Both UNECE and national partners should continue and encourage regular interaction between experts to share experiences, facilitate cross-learning and identify solutions, by using innovative communication mechanisms and platforms, such as teleconferences, Skype, social media groups, etc.

F. Discussion of strategies to acquire funding and political support for advancing the Convention through other partners should be an integral part of UNECE support in EECCA region in addition to the focus on capacity building and skills upgrade.

G. Affirming gender balance in invitations to participate in project activities and exploring opportunities to cooperate with other development partners with explicit mandate and knowledge on how to ensure gender equality, would help ensure equal representation and equal project benefits for women and men.

BACKGROUND

Air pollution is closely linked to the Sustainable Development Goals (SDGs) and several of the goals have air pollution issues implicitly included. The ways in which air pollution is linked and the ways for assessing air pollution specifically within the 2030 agenda have already been brought up in various fora but it needs further attention in particular with respect to its links to health, welfare and urbanization.

Air pollution and its transboundary dimension have for long been of high priority within the UNECE region. The 2016 scientific assessment report [“Towards Cleaner Air”](#) points specifically to the importance of transboundary air pollution for the exceeding of air quality limits in urban air; an area that needs a closer collaboration between international organisations, countries, NGOs, industry and urban authorities. On this topic several initiatives are taken by international organisations such as [Arctic Monitoring and Assessment Programme](#) (AMAP) and [Climate and Clean Air Coalition](#) (CCAC). There is an increasing interest from these organisations to discuss how to proceed and collaborate. [The Stockholm Convention on Persistent Organic Pollutants](#) (POPs) and the [Minamata Convention](#) are also covering air pollution in a global context.

Air pollution emissions have been reduced considerably in the UNECE region over the last decades, in part as a result of integrated air pollution management strategies that were developed jointly under the Convention and its protocols. However, the progress is still uneven across the region. In particular in Eastern, South-Eastern Europe, the Caucasus and Central Asia, the increase in energy production, industry growth and urban development is bound to raise emissions. One particular issue of interest for the UNECE region is the ratification and implementation of the 1979 UNECE [Convention on Long-range Transboundary Air Pollution](#) (hereinafter the Air Convention) Protocols in the Eastern part of the UNECE region.

Since 1979 the Air Convention has addressed some of the major environmental problems of the UNECE region through scientific collaboration and policy negotiation. The Convention has been extended by eight protocols that identify specific measures to be taken by Parties to cut their emissions of air pollutants. The aim of the Convention is that Parties shall endeavor to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution. Parties develop policies and strategies to combat the discharge of air pollutants through exchanges of information, consultation, research and monitoring.

The Convention, which currently⁸ has 51 Parties identifies the Executive Secretary of UNECE as its secretariat. In 2010, the Air Convention’s Executive Body, through decision [2010/17](#), established a coordinating group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia. Through information exchange and capacity-building, the group aims to foster implementation of the Convention in countries of Eastern Europe, the Caucasus and Central Asia. The assistance programme that is currently being undertaken with the support of several Parties aims to raise the political profile of the Convention in the region; to encourage ratification of the Convention’s most recent protocols; and to increase cooperation and exchange of information by involving countries in emissions reporting, monitoring and modeling activities under the Convention. The capacity-building programme to support countries of Eastern Europe, the Caucasus and Central Asia is managed by the Air Convention Secretariat and funded by several donor Parties (European Union, Norway, Germany, Russian Federation, Switzerland and Sweden).

⁸ As of April 2019

The Parties meet annually at sessions of the Executive Body to review ongoing work and plan future activities including a workplan for the coming year. The three main subsidiary bodies - the Working Group on Effects, the Steering Body to EMEP and the Working Group on Strategies and Review - as well as the Convention's Implementation Committee, report to the Executive Body each year. Currently, the Convention's priority activities include review and possible revision of its most recent protocols, implementation of the Convention and its protocols across the entire UNECE region (with special focus on Eastern Europe, the Caucasus and Central Asia and South-East Europe) and sharing its knowledge and information with other regions of the world.

The UNECE Project [“Strengthening the implementation of the ECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia \(EECCA\)”](#) (hereinafter “Project”) is funded by the Russian Federation and is part of this comprehensive assistance programme under UNECE⁹ The project is one in a series of projects and activities around implementation of the Convention. It therefore is directly related to the UNECE regular programme of work under the Sub-programme 1 “Environment”¹⁰. The objective of the project is to strengthen the implementation and ratification of the Convention and its protocols in Eastern Europe, the Caucasus and Central Asia. In particular, the project aims at developing national emission inventories and improving skills of managing air quality and skills of other technical experts from countries of Eastern Europe, the Caucasus and Central Asia, representatives of national authorities involved in the implementation of the Convention and members of the Coordinating Group on the promotion of actions towards implementation of the Convention. The project had a budget of \$435,000 for 4 years. Human Resources team at the UNECE involved only two individuals, whose time was spread across the project timeline: staff at P3 level for 5 months and G5 level staff for 6 months.

The ultimate beneficiaries of the project were the population of the beneficiary countries listed above, thus realizing their right to the clean air through strengthened implementation of the Air Convention. The project under evaluation did not plan to reach out to this specific group due to scope limitations. The direct beneficiaries of the project were the governments of the beneficiary countries, which were exposed to the existing international agreements in the sphere of air quality and the relevant knowledge base encouraging them to take up necessary steps towards the ratification of the Air Convention and its protocols. Another direct beneficiary was the expert community, which was to be equipped with the necessary skills of collecting and reporting emission data, and promoting actions towards the implementation of the Air Convention.

EVALUATION SCOPE AND OBJECTIVES

This end-of-the project evaluation covers the full period of implementation from 2015 to 2018 in the following EECCA countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Tajikistan, Ukraine, and Uzbekistan.

The purpose of this evaluation was to review the implementation of and assess the extent to which the objectives of the project “Strengthening the implementation of the ECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia (EECCA)” had been met. The evaluation assessed relevance, effectiveness, efficiency and sustainability of the project in the implementation and ratification of the Convention and its protocols through increased cooperation and information exchange between the countries and the scientific centres of the

⁹ Programme 17, Subprogramme 1: Environment, biennial plan (A/71/6/Rev.1 / Programme 1).

¹⁰<https://www.unece.org/info/open-unece/pmt/extra-budgetary/environment/e239-strengthening-the-implementation-of-the-unece-convention-on-long-range-transboundary-air-pollution-in-eastern-europe-the-caucasus-and-central-asia.html>

Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), improvement of emission inventories, monitoring and modelling activities in the ECE region, in particular in Eastern Europe, the Caucasus and Central Asia.

The evaluation data collection primarily targeted beneficiaries from EECCA countries (Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, the Republic of Moldova, Tajikistan, Ukraine and Uzbekistan), as well as expert from UNECE, and the Russian Federation in charge of project management or content. The contract dates for the evaluation were 1 January 2019 – 3 April 2019.

The evaluation was guided by the objectives and expected accomplishments established in the original project documents, and considered the extent to which during 2015-2018 the project contributed to/managed to achieve the following:

- (EA 1) Emissions inventories developed in countries of Eastern Europe, the Caucuses and Central Asia in accordance with the Guidelines for estimating and reporting emission data under the Convention and the EMEP/EEA Air pollutant emission inventory guidebook;
- (EA2) Promotion of ratification and implementation of the Convention and its key Protocols; and
- (EA3) Enhanced the outcomes of the work of the Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia.

More specifically, key evaluation questions were stipulated in the TOR, annexed in Annex A. Learning and results of the evaluation are intended to support improvement of future technical cooperation projects and activities by UNECE in relation to implementation of the ECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia, including EU-funded project “Implementation of the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) – Phase II” (2019-2021) which was launched in early 2019, and phase II of the RF project – “Strengthening the implementation of the UNECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia (Phase II)” (1 July 2019 – 31 December 2020). The evaluation report and the management response will be made publicly available on the UNECE website.

EVALUATION METHODOLOGY

Consistent with the Evaluation TOR (Annex A), the evaluation used a **mixed-methods approach** that allowed depth and breadth in data collection and triangulation during the analysis and interpretation. The description of qualitative and quantitative data collection methods used is provided in the table below.

Table 1. Data collection methods and data sources

Data Collection Method	Type of data source	Sample/Response
Document desk review: background documents were made available to the evaluator to ensure an understanding of the design and context of the project.	<ul style="list-style-type: none"> - Project webpage; - Annual progress reports (for 2015, 2016 and 2017) and final project report, including annual progress report for 2018. - Programmes and materials (presentations, background documents) developed for national and regional workshops - Participant lists and reports of workshops and joint meetings from consultants, including training evaluations; 	20 documents listed in Annex B

Data Collection Method	Type of data source	Sample/Response
	- Monitoring and status of the types of data reported to UNECE under the Convention	
<p>Electronic survey (quantitative data collection) was designed in English and delivered in Russian, to assess the perspectives on the project from the beneficiary countries on issues of relevance to the evaluation.</p>	<p>The survey targeted two types of internal stakeholder groups of: (1) national participants of national and regional trainings from all intended beneficiary countries, (2) CLRTAP Focal Points. The list of targeted respondents is provided in Annex D: it was confirmed with UNECE project management team.</p>	<p>48% response rate (N=23) of 47 All countries responded except Uzbekistan; 70% of respondents were women; 8 in 10 mid-senior level experts</p>
<p>Key informant interviews (KIIs): The Evaluation used purposive sampling for the qualitative interviews with key informants, including core consultants.</p>	<p>Interviews were conducted with the two core consultants who have delivered the majority of the national trainings and participated in the joint meetings. Further, using the list of key stakeholders referenced in Annex C and preliminary results of the online survey, potential respondents for KIIs were identified. The selection was based on the following criteria:</p> <ul style="list-style-type: none"> - Geographic representation (Eastern Europe, the Caucasus and Central Asia); - Donor representation (the Ministry of Environment of the Russian Federation); - Representation from the implementing entity (UNECE); and - Gender balance. 	<p>4 KIIs were conducted; All respondents were women.</p>

Limitations

This project evaluation had several limitations, which should be noted in reading this report:

- The project is related to other UNECE projects implemented in the framework of the capacity-building programme and funded by other donor Parties. All projects under this assistance programme serve to strengthen the implementation of the Convention and support the ratification of the key protocols to the Air Convention in EECCA countries. The evaluator introduced time reference points where possible to decrease chances of confusion between the projects – the one subject to evaluation and other UNECE work related to the Air Convention. However, the evaluation confirmed that beneficiaries were unable to fully separate the project in question when sharing their perceptions and assessment of project activities and interventions. Therefore, findings about the target project’s relevance, effectiveness, efficiency and sustainability should be interpreted with caution.
- Qualitative sample selection: The purposive sampling, based on participant lists provided by UNECE and assembled based on multiple participant lists, and could therefore lead to some inherent bias. The evaluator used content analysis approach to enhance objectivity, and results from the interviews were triangulated with data from other sources to increase the robustness of findings.
- Online survey sampling, respondent bias and response rate: Although the range of possible respondents for the online survey appeared controlled and feasible, using some groups as a target meant that respondents could share the link with colleagues. Furthermore, originally small sample of targeted respondents was affected by the actual low response rate, below N=50, making survey results statistically insignificant. Lastly, seventy percent (70%) of the respondents were from the national ministries of ecology and natural resources, causing a certain degree of bias. To increase the robustness and objectivity of findings, quantitative and qualitative data generated from the online survey was triangulated with information from other data sources.

- The level of involvement of various target countries in the implementation of the Air Convention was different, e.g. at the time of this evaluation Tajikistan and Uzbekistan were not Parties to the Convention. Thus, the analysis of findings and conclusions had to consider different baseline situations at the project start and end.
- Project completed in December 2018. Therefore, the schedule of this evaluation did not allow to effectively assess the sustainability of project achievements, rather the perception of potential sustainability as viewed by beneficiaries and the implementing entity.
- Assessing the quality of national emissions reports, including numeric values associated with reported emissions, was outside the scope of this evaluation.

The evaluator made every possible effort to mitigate for limitations and made necessary references and caveats in this report where applicable.

EVALUATION FINDINGS

Findings by Evaluation Criterion

Relevance

To a high extent, the implementation of the project supported the expected accomplishments of the UNECE regular [programme of work under the Subprogramme 1 “Environment”](#)¹¹. Almost all, (94,5%) of the respondents (especially those who participated in other UNECE projects in the EECCA region for several years) considered this project very relevant or relevant as an integral part of UNECE regional activities. The evaluation found that the project design and development interventions were relevant for meeting the project objectives. Evidenced by familiarity of the key beneficiaries with the project objective, and broader stream of work under UNECE with regards to the Convention and their overall positive assessment of the type of interventions, project design and fidelity to it during implementation were a success.

The evaluated project is one in a series of projects and activities around implementation of the Convention. It therefore is directly related to the UNECE regular programme of work under the Subprogramme 1 “Environment”¹². During the same implementation period, the evaluated project partially overlapped with another UNECE project [“Strengthening the implementation of UNECE Convention on long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and the Central Asia”](#), (2012-2016), and was ongoing at the same time with the project entitled “Support to the implementation of the Convention on Long-Range Transboundary Air Pollution in the EECCA region” (2014–2018) (co-funded by the European Commission). All of them appeared synergetic and complementary, in a continuum of UNECE support to ratification and implementation of activities under the Air Convention. The expected results of the project, subject to this evaluation, were similar to the objectives of the project funded by the European Commission. Both projects correspond to specific components in the Action Plan for Eastern Europe, the Caucasus and Central Asia¹³ and 2018–2019 workplan for the implementation of the Convention. Building on all previous work, including the project subject to this evaluation, EU-funded project “Implementation of the

¹¹ A/71/6/Rev.1 / Programme 17 (<https://undocs.org/A/71/6/Rev.1>)

¹² https://www.unece.org/fileadmin/DAM/operact/Technical_Cooperation/Regional_Advisers/2018-2019_BudgetPlan_Environment.pdf

¹³ The Project “Implementation of the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) – Phase II - Agreement no. 21.020701/2018/785262/S{JB/ENV.C3 was launched (2019-2021) http://www.unece.org/fileadmin/DAM/env/documents/2017/AIR/EB/ECE.EB.AIR.140-Add.1-Advance_copy-23.4.18.pdf

UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) – Phase II” (2019-2021) was recently launched.

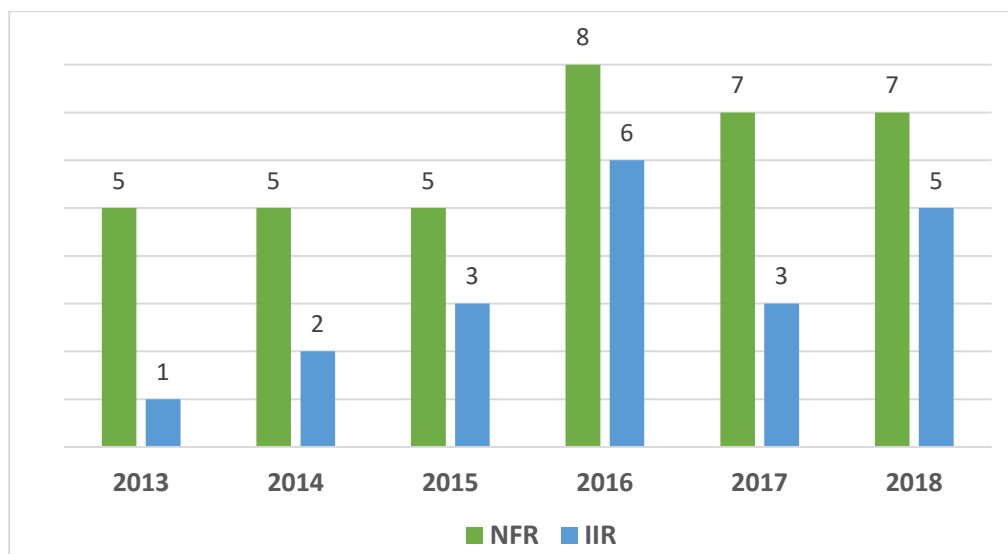
Almost all (9 in 10 respondents to the online survey), direct beneficiaries of the project, namely national experts, indicated that the project was highly relevant and responded to the specific needs and priorities of the beneficiary countries in the area of the air quality management, sub-regions (Eastern Europe, Central Asia, and Caucasus) and region at large. Views of UNECE and consultants, mandated to engage with the beneficiaries, were consistent.

- When prompted to explain project relevance, stakeholders’ opinions ranged from national priorities around air pollution management, the transboundary nature of air pollution, and resulting need for learning within the region, to individual capacity building on filling in the reporting template for the Convention. During the interviews and in the online survey, almost all (94%) respondents demonstrated understanding that “air pollutants know no borders” and that “air pollution as a universal problem that needs common efforts and international coordination of air pollution policy”- rationale behind regional approaches taken by the project. In the survey and interviews project beneficiaries highlighted the importance of the project for amending or developing relevant national documentation and legislation through learning from other countries on how to use internationally-accepted documents to develop national legislature and measures to control air pollution, improving the reporting related to emissions, information sharing among EECCA experts about their activities to implement the Convention, and analyzing the national legislation in order to determine further steps towards the ratification of major Protocols . One respondent noted that the Convention comprises all issues of importance for the country, especially those related to technical standardization”.
- The consultants from the Russian Federation who conducted trainings in the beneficiary countries also noted that the level of understanding of the significance of the Air Convention varies between countries. While participants from countries – Parties to the Convention – were more interested and knowledgeable about the significance of this issue, about retrieving and working with the relevant data, others were not knowledgeable. Thus, one consultant mentioned that during the first visit to Tajikistan it was evident that participants did not understand anything, while during the second workshop it was clear they had some understanding. Overall, in the countries that have not ratified the Convention, the level of knowledge was still low.

Even respondents from countries that are not party to the Convention, or who have not ratified protocols indicated added value of the project and its activities, specifically an opportunity to raise awareness, speed up signatures of the protocols, and their subsequent implementation. One respondent called the project the only driving force and the motivator for the ratification of the Air Convention.

Vast majority of respondents to the online survey (7 in 10) were familiar with or participated in a range of project-supported activities: trainings on NFR and IIR preparations, serving as national focal points for the Convention and participating in the EECCA coordinating group meetings. UNECE data on report submissions supported claims by respondents. Figure 1 below illustrates an increase in cumulative number of NFR and IIR reports between 2013 and 2018 by eight Parties to the Convention (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, the Republic of Moldova and Ukraine).

Figure 1: NFR and IIR Report Submissions, 2013-2018



The list of participants of project activities on the national level included experts from state agencies (environmental ministries – 69%, joint-stock companies – 17%, meteorological agencies – 4,4%), and other national experts (4,4%). The evaluation findings noted that decision-makers were not involved in project activities, rather technical staff, which was considered an obstacle for the further promotion of the Air Convention and its protocols, especially in the countries that have not yet acceded to the Convention. Selected responses to the online survey indicated that “inviting decision-makers to the table during national and regional activities would have enriched their understanding of the complexity of the air pollution issue and methodological reporting requirements, importance of training by international-level consultants and exposure, as well as the need to learn and adapt regionally.”

Also related to the project beneficiaries and participants of project activities, the project succeeded in ensuring gender parity among the participants of the project activities from beneficiary countries. Lists of participants from training and capacity building activities showed that half of participants were women (51%), although the ratio was not the same within countries, and was subject to staff turnover. As mentioned by one respondent, the number of experts dealing with this issue on the national level, is limited, and by default the workshops were attended by those directly involved in monitoring the implementation of the Air Convention and other relevant international agreements. With this in view, it would be unrealistic to expect that the project would in the future affect the gender composition of participants on the level of ministries or other state agencies without extra effort.

Effectiveness

The table in Annex D highlights the Expected project Accomplishments and key milestones achieved across the life of the project, with additional narrative provided below. Evaluation found that the implementation of the project responded to the expected accomplishments of the UNECE regular programme of work under the Subprogramme 1 “Environment” and thus contributed to the overall objective of the Air Convention. Namely, the evaluation found that the project design and development interventions contributed to the project’s effectiveness in achieving:

(EA1) Emissions inventories developed in countries of Eastern Europe, the Caucasus and Central Asia in accordance with the Guidelines for estimating and reporting emission data under the Convention and the EMEP/EEA Air pollutant emission inventory guidebook;

(EA2) Promotion of ratification and implementation of the Convention and its key Protocols; and

(EA3) Enhanced the outcomes of the work of the Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia.

The survey and the interviews demonstrated the overall confidence of respondents that the project strongly contributed or contributed to the objectives of the Air Convention, especially in strengthening capacities of the beneficiary countries to develop emission inventories. The final report states that Armenia and Kyrgyzstan for the first time submitted their IIRs, Kazakhstan improved the quality of IIR, while Uzbekistan and Tajikistan drafted the outline for NFR and IIR. As seen from the workshop assessments and from the interviews, this was due to the fact that the consultants provided templates for the calculation of emissions that they can apply in the development of the national emission inventory, allotted additional time for practical exercises and engaged in email communication while the reports were developed. Thus, a beneficiary from one of the countries mentioned the previous use of outdated reporting system, and stated that at the workshops the national experts learnt how to report properly. Evidently, the provision of templates for the compilation of emission data and preparation of IIR was seen as the strong side of the workshops.

Between 2016 and 2018, the implementation of the project activities resulted in enhanced skills of emission experts in six (6) countries - Azerbaijan, Kazakhstan, Tajikistan, Armenia, Kyrgyzstan and Uzbekistan - in developing and improving the national emission inventories in accordance with the requirements of the Convention and in preparing related reports. Skills enhancement, primarily through national workshops, and regional engagements was one of the key achievements, positively viewed by stakeholders. Practically 100% of responses to the online survey, the review of reports from the trainings assembled by the consultant trainers, and interviews demonstrated appreciation for the high quality of trainings. Workshop participants highlighted the consultants' high professionalism and broad range of vision, also the provision of practical examples. Their professional presentation of materials helped perceive the information easily.

The involvement of experts from the Russian Federation was especially appreciated by all participants. The value of such involvement was their presenting well-tested methodologies and approaches, and the proximity of problems and backgrounds between the countries. One respondent noted that the Guidelines designed for developed European countries are not directly applicable to the EECCA region. The general sense of applicability of knowledge and skills obtained at the workshops for the regional context was shared by the 94% of respondents: a strong signal of likely sustainability of project results. Moreover, the UNECE key project manager was involved in the process from a recipient country perspective: she was easily immersed in the implementation from the start, to facilitate stronger linkages between project elements and preserve continuity and tailored approach to the training audiences in different beneficiary countries.

The findings of the evaluation validated the assessment of the final project report with regard to the work of the EECCA Coordinating Group, which was found to facilitate the exchange of information and learning among countries in Eastern Europe, the Caucasus and Central Asia on various aspects of the Convention's implementation, and raise their awareness of existing guidance materials, tools and networks. All online survey respondents expressed appreciation of regional and sub-regional connections that allowed them to engage deeply in various aspects of raising awareness about and actual implementation of the protocols of the Air Convention, including through peer support and learning from each other. When prompted about the actual means of and platforms for communication that had been most effective, e.g. regional meetings, web-platforms and actual email

communication, especially at the time of reporting, email communication appeared the most popular, followed by regional meetings/events, web platforms and teleconferences¹⁴. One respondent in the interview mentioned that “*email communication does not allow for full-fledged communication*”, and expressed willingness to try other channels, namely, teleconferences. Meetings in Geneva received the lowest rating, emphasizing the high degree of regional ownership and lenses through which project benefits were seen.

The evaluation found limited evidence on obstacles and challenges that inhibited achievement of project objectives at the regional and sub-regional levels. Challenges were often presented as recommendations for the next project, rather than inhibitors to actual project success:

- One of the main challenges voiced by 12,5% of respondents was the low level of awareness and support from actual decision-makers, and relevant Ministries in their home countries, primarily in Central Asia;
- For Activity A 1.1, involving training and providing assistance to national teams of experts in development of national emission inventories, thirteen (12,5%) percent of respondents indicated limited supporting documentation at national level, and 6,4% - low quality of national data that prevents them from applying skills and knowledge obtained during trainings;
- Respondents in their answers to the online survey mentioned the absence of national policies in this sphere, or vague definition of national policies (*technical priorities, capacity building, transfer of technologies, etc*), frequent change of key personnel, administrative changes in authorized agencies/ministries, and limited expert potential.

Efficiency

Overall, the evaluation found that the project had been implemented efficiently, considering limited human and financial resources. The initially agreed start date of the project (December 2014) was postponed due to the request by the Russian Federation to amend one of the project components. The final project document was approved by the Permanent Mission of the Russian Federation in July 2015. In August 2015, the project account was created in UNECE’s internal system IMIS, and in September 2015 the initial allotment was approved. Owing to the deployment of the new Enterprise Resource Planning system (UMOJA) in 2015, the actual start of the project was the beginning of 2016 instead of July 2015. As the actual start of the project was delayed by six months, the implementation period of the project was extended until end of 2018 to complete the three-year implementation period as originally planned.

Project’s actual expenditures (as of 402,234 USD (92.5%) including cost of project evaluation) were slightly below initial budget (435,000 USD). However, the underspending in the project did not result in underperformance. On the contrary, all the objectives of the project have been achieved. Throughout the three years of project’s duration, only 29% of the project budget was allocated for salary of the two staff (P3 and G5 for 6 months), which project team considered insufficient, as it was lower than in similar exercises. Significantly higher than intended amount of staff’s time was spent on preparation and implementation of the activities: no-cost time extension and activity modification were requested, to also “better reflect priority assistance needs expressed by countries”. The insufficient resources were complemented by HR time from other support and capacity building projects funded by several donors, as also referenced in the background.

Notably, the internal budget allocations did not appear to cause significant issues with efficiency of implementation, timeliness or about inadequacy of human resources from the beneficiary side. Nearly 90% of respondents to the online survey indicated that the project was implemented in

¹⁴ Respondents are based on a limited number of responses (N=14), therefore providing a graph could be misleading.

accordance with the plan; the same sentiment was echoed in the interviews as well. The minor problems raised during data collection concerned project start and external circumstances considered outside of project' sphere of control.

Postponing the activities in Uzbekistan in 2016 and 2017 due to the stance of the local government, was the only evident delay during actual implementation. In Uzbekistan, the law related to Air pollution has been in draft since 2015, at the time of this report development it was not approved yet. This however did not preclude ultimate collaboration under UNECE project: a 3-day workshop organized in Tashkent in November of 2018 to develop national inventories. Similar to other national workshops, the workshop helped national experts in enhancing their understanding of the reporting requirements under the Convention. Consequently, the first draft report on national emission inventories (NFR14) and outline of Informative Inventory Report (IIR) were prepared for the 2018 reporting round.

And last but not the least, limited internet access and actual usage of email sometimes made communication and engagement between UNECE and countries challenging and not as efficient. This however applied to not more than two countries.

With an exception of the challenges at the project start, time was made up during implementation and the examples of inefficiencies did not severely affect actual implementation and project overall deliverables, including project outputs or planned outcomes.

Sustainability

The project achievements were output-driven, and timing (immediately after project end) of this evaluation did not allow for assessing actual sustainability of achieved outcomes, rather likelihood of sustaining project achievements. Overall, there was a strong sense that the key national air quality management institutions are ready to take over and have required capacities to sustain the project results. Based on the various data sources, the following project outcomes and outputs indicate high likelihood that UNECE activities under this project have contributed to increasing capacities of key national air quality management institutions:

- 1) **Reporting on emission inventories:** Improved emission data reporting under the Convention by countries in the EECCA region. In 2016, all Parties in EECCA reported their emissions under the Convention (8 Parties submitted their NFR tables and, in addition, 7 Parties submitted their IIRs, as compared to 5 NFR submissions and 1 IIR submission in 2013). However, in the 2017 reporting round, emission data in the NFR format was submitted by 7 Parties in the EECCA region and only three parties submitted their IIR. 7 parties submitted NFRs in the 2018 reporting round and, in addition, 5 Parties submitted their IIRs. Lessons learnt through development of submissions following capacity building under UNECE support were exchanged between colleagues to further enhance the quality and effectiveness of submission development for the future.
- 2) **Exchange of information and participation:** Improved exchange of information and participation of delegates and experts from EECCA countries in the meetings and activities under the Convention, including exchange of information on challenges and progress in implementation of the Convention at the Coordinating Groups meetings, as well as at the special meetings of task forces (e.g. TFEIP meeting in 2017) and other workshops under the Convention (e.g. the sixth “Saltsjöbaden” workshop in 2018, discussed below). Respondents to the online survey praised networking and information exchange opportunities as key to facilitating future

communication on the regional and bi-lateral levels. This was echoed by the expert interviews who witnessed evidence of intra-regional learning and information exchange.

- 3) **Awareness-raising:** To support awareness raising on air pollution, its environmental and health effects, and abatement measures among the countries of Eastern Europe, the Caucasus and Central Asia, the Air Convention website and the brochure of Working Group on Effects have been translated into Russian - with a high potential for use in a Russian speaking region, and to facilitate regional peer-to-peer engagements and exchange of information.

With regard to the EA2 (Activity 2.1 b), the evaluation commends the Saltsjobaden VI Workshop recommendations, several of which directly relate to the project under evaluation. Namely, Recommendation 1 calls to explore the possibility for the Eastern region parties to allow for step-wise ratification, Recommendation 2 – for the establishment of the Global air quality and earth observation network, which requires financial support, in particular in regions with economies in transition and further involvement of the World Bank and similar organisations, and Recommendation 9 calls for encouraging young professionals to participate in air quality science and policy work. These recommendations are essential for the target EECCA region for various reasons: they take into account the regional political context, personnel changes in the implementing government agencies, and lack of financial resources that would allow for involvement of countries with economies in transition in full-fledged technical cooperation in the area of air pollution management. This reflection is corroborated by respondents to the online survey and interview participants. In their opinion, the top three pressing activities that can facilitate ratification of the Protocols included flexible mechanisms for stepwise ratification of the protocols to the Convention (38,46%) , international political pressure to ratify the protocols to the Convention (15,38%); and recommendations on possible adjustments to national legislation regarding the introduction and implementation of ELVs/BATs (15,38%). During the interviews, the respondents indicated that inviting decision-makers to the table during national and regional activities would have enriched their understanding of the complexity of the air pollution issue and methodological reporting requirements, importance of training by international-level consultants and international exposure. Taken the short time span after the Saltsjobaden Workshop, the evaluation failed to find any visible steps for implementing these recommendations, which could contribute to the project sustainability.

Almost 9 in 10 (88%) of survey respondents claimed that they have applied acquired knowledge/skills in their work job, both for developing national emission inventories and for developing national programmes on improving the air quality and environmental protection, as well as in other areas, which adds to the sustainability of projects outcomes.

Analysis of project documentation, online surveys and interviews provide grounds to assume the high likelihood that the results of the project will continue after completion of the project in the majority of the beneficiary countries. Primarily, the ground work has been laid through support to the activities of the EECCA Coordinating Group aimed at capacity-building or information exchange among its participating countries. Even in the noted limited involvement of decision-makers in project activities, almost 7 out of 10 respondents felt very or somewhat confident (12,5% and 62,5%, respectively) that their leading government agencies had the necessary knowledge and capacities to take over and to sustain project achievements. The remaining 25% were skeptical about the degree to which their key national air quality management institutions were ready to sustain the project results due to the following most common reasons: lack of national legislature to control air pollution, reorganization of state agencies, and the need for methodological guidance, including Russian-language materials, and technical support. Almost eight percent (7,69%) of respondents also mentioned that further awareness raising among decision-makers on the political profile of the Air Convention, on the environmental and health effects of air pollution are essential.

The national expert potential has visibly grown, as witnessed by workshop assessments, online surveys and the reports on implementing the EA1 component. National experts, the end beneficiaries of the project, through interviews and online survey responses identified various avenues in which the stakeholders' engagement could continue in and between the beneficiary countries, including through:

- design and implementation of smaller projects, i.e. focused on regional cross-learning, at the national and regional levels. Their contents and design may be outlined and clarified with beneficiary countries during the next project phase;
- continued work at the level of experts, while involving decision-makers, for example holding a regional conference with the participation of Ministers and representatives from Ministries of Environment in order to promote the ratification of the Convention and protocols in the EECCA countries, which have not done this;
- focused coordination during inventory development and submission, for learning between the countries, reflecting regional context.

In responses to online survey, as well as during the interviews, project participants commented about the need for continued financial support, including through the additional phase of the project. A respondent from Uzbekistan (non-party to the Convention) stated that direct technical assistance for modernization of equipment for monitoring air pollution may be treated favourable by the local authorities and may facilitate the process of signing the Convention.

CONCLUSIONS AND RECOMMENDATIONS

Based on findings above, evaluation concludes that the project design and development interventions were relevant for meeting the project objectives. Evidenced by familiarity of the key beneficiaries with the project objective, and broader stream of work under UNECE with regards to the Convention and their overall positive assessment of the type of interventions, project design and fidelity to it during implementation were a success. Detailed conclusions provided below are both results-specific and summative, while being guided by the groups of evaluation questions. Against the backdrop of UNECE's previous work in the region and connections between this and other UNECE projects, project beneficiaries highly appreciated project strategies, contributions and implementation schedule.

Conclusions

- I. The evaluation revealed that the most tangible outcome and output of the project were the improved capacity of national experts in Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan to prepare emission data tables and Informative Inventory Reports (IIR), and actual submissions of the inventories. While the six EECCA countries that have benefited from UNECE support during the project period are at different stages of implementation, the project has succeeded in upgrading them to a more or less even level with regards to IIR reporting.
- II. The project's focus on developing national emission inventories and improving skills related to managing air quality of technical experts from EECCA countries have created prerequisites for further steps towards the ratification of the Convention and its Protocols. For the countries that are not Parties to the Convention, or who have not yet ratified any protocols, the project activities created an opportunity to raise awareness, speed up accession to the protocols, and their subsequent implementation.

- III. From the beneficiary country perspective, stemming from the background of the UNECE project manager and her demonstrated strong technical and personal leadership, from the design to start of implementing activities, as well as the successful involvement of the knowledgeable and committed consultants from the Russian Federation contributed to project's continued relevance and effectiveness. This helped to get immersed in the implementation from the start, facilitate stronger linkages between project elements and preserve continuity and tailored approach to the training audiences in different beneficiary countries.
- IV. The project attempted to involve national experts and public officials in charge of the implementation of the Convention in various activities. Nevertheless, the frequent staff turnover in the relevant ministries and general instability in the beneficiary countries posed a risk to the project, which means that the sustainability of project outcomes cannot always be ensured.
- V. The project provided numerous opportunities for interaction and communication among participants. Nevertheless, they mostly used and appreciated such traditional channels as sub-regional and regional meetings, and email communication, facilitated by UNECE.
- VI. The earmarked funding from Russian Federation and the flexibility in allowing adjustment to the project activities and providing no-cost extension for project activities has contributed to the project success. Even though additional funding from other projects was leveraged to cover limited human resources on the UNECE side, the project effect on beneficiaries was notable, and may be considered a success from the stand point of value –for -money.
- VII. The project outcomes illustrated gender-balanced representation, namely relatively equal involvement of women in the project activities: the capacity building efforts, including expert and Regional Work Group meetings. Although without explicit efforts by the project, it has shown a positive example for others to consider.

Recommendations

Recommendations are generic in nature, with a primary focus on providing a vision for design and setting objectives for similar projects.

- A. Given UNECE's convening power and mandate, UNECE can facilitate involving and engaging with a broader range of key stakeholders/decision makers that could advance the Air Convention priorities more effectively by:
 - organizing regional or national seminars to include decision-makers, such as representatives of the ministries of environment and natural resource management;
 - including officials from statistical agencies in trainings would also facilitate their understanding of the type of data required to apply international methodologies.
- B. UNECE in collaboration with committed and experienced national partners should further work on the adaptability of the tools and methodologies to the regional and national contexts. Furthermore, UNECE may consider diversifying the portfolio of products covered in subsequent workshops and seminars, to include Greenhouse Gas - Air Pollution Interactions and Synergies (GAINS)¹⁵ and COPERT¹⁶ models and the like.

¹⁵ <http://gains.iiasa.ac.at/models/>

¹⁶ <https://www.emisia.com/utilities/copert/documentation/>

- C. There is a continued need for awareness raising about the Convention and its protocols on the environmental and health effects of air pollution as well as modalities of engagement and benefits. Potential tools may include a basic tool kit that could be applied for fast familiarization of new public officials with the problem, and/or a framework document that would visibly demonstrate the benefits of acceding to the Air Convention and the protocols. Using well-substantiated and clear-cut messages about adaptability of the tools to national contexts could help better sensitize politicians about the advantages of the Convention and encourage them to internalize this knowledge for further actions.
- D. UNECE should consider opportunities to enhance and strengthen accountability mechanisms to expedite ratification of protocols under the Convention in the countries where protocols have not been ratified. In the situation of frequent change of relevant public officials, the establishment of such mechanisms, including international standards and procedures, could ensure sustainability and the continuity of efforts and facilitate the development of the national road map.
- E. Both UNECE and national partners should continue and encourage regular interaction between experts to share experiences, facilitate cross-learning and identify solutions, by using innovative communication mechanisms and platforms. In their interaction with the beneficiaries and subsequent projects, UNECE could encourage use of various communication channels and platforms (teleconferences, Skype, social media groups, etc.) for sharing experiences and problems and seeking answers, to complement traditional channels as sub-regional and regional meetings, and some email communication. These mechanisms could be envisaged and integrated into new projects.
- F. Discussion of strategies to acquire funding and political support for advancing the Convention through other partners should be an integral part of UNECE support in EECCA region in addition to the focus on capacity building and skills upgrade.
- G. Consistent with [UNECE prioritization of gender-responsive standards](#), affirming gender balance in invitations to participate would further ensure equal representation and equal project benefits for women and men. Existing gender representation in beneficiaries, which implicitly facilitated attention to gender equality, could be complemented by exploring opportunities to cooperate with other development partners with explicit mandate and knowledge on how to ensure gender equality, for example the UN Women and national gender machineries.
- H. At the stage of the project proposal preparation extra analysis is recommended to better anticipate related costs, based on comparable projects and industry standards. Sufficient attention and resources should be put to cover expenditures for staff needed to manage and implement the project throughout its cycle.

Annex A: Evaluation TOR

TERMS OF REFERENCE FOR EVALUATION OF THE PROJECT:

Strengthening the implementation of the ECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia

I. Purpose

The purpose of this evaluation is to review the implementation and assess the extent to which the objectives of the project “Strengthening the implementation of the ECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia (EECCA) “, funded by the Russian Federation (hereinafter “Project”) were achieved. The evaluation will assess the relevance, effectiveness, efficiency and sustainability of the project in the implementation and ratification of the Convention and its protocols through increased cooperation and information exchange between the countries and the scientific centres to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), expansion of emission inventories, monitoring and modelling activities in the ECE region, in particular in Eastern Europe, the Caucasus and Central Asia. The results of the evaluation will support improvement of future technical cooperation projects and activities implemented by UNECE.

II. Scope

The evaluation will be guided by the objectives and expected accomplishments established in the project document. The evaluation will consider the extent to which the project: strengthened capacities of the beneficiary countries to develop emission inventories in accordance with the Guidelines for estimating and reporting emission data under the Convention and the EMEP/EEA Air pollutant emission inventory guidebook (EA1); promoted the ratification and implementation of the Convention and its key Protocols (EA2); and enhanced the outcomes of the work of the Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central (EA3). The evaluation will cover the full period of implementation from 2014 to 2018.

III. Background

Air pollution emissions have been considerably reduced in the ECE region over last decades in part by relying on integrated air pollution management strategies that were developed jointly under the Convention on Long-range Transboundary Air Pollution and its protocols. However, the progress is uneven across the region: it was less prominent in countries with economies in transition, in particular in Eastern Europe, the Caucasus and Central Asia, and mainly driven by economic downturn rather than by consistent and integrated air pollution management. The expected increase in energy production, industry growth and urban development demands higher attention to the issue. High levels of emissions are causing severe health and environmental damage not only within the sub-region, but also outside of it due to transboundary fluxes of pollutants.

Active involvement of all ECE countries is crucial for regional effectiveness of the Convention as an instrument for protection of human health and environment. The result of strengthened national air quality management is the reduction air pollution and its negative impacts on human health and environment through improved accession to and implementation of the Convention on Long-range Transboundary Air Pollution and its protocols among the countries of Eastern Europe, the Caucasus and Central Asia.

The initially agreed start date of the project was postponed due to the request by the Russian Federation to amend one of the project components. The implementation of the project started in mid-2015, with support to meetings on information exchange of the Coordinating Group for Eastern Europe, Caucasus and Central Asia. However, the full roll-out of the project activities was only started in 2016, as agreed

with the Russian Federation. As a result of the postponed start date, the project implementation period was extended until December 2018 (and not mid-2018, as initially planned).

The project aimed to strengthen the implementation and ratification of the Convention and its protocols through increased cooperation and information exchange between the countries and the EMEP scientific centres, expansion of emission inventories, monitoring and modelling activities in the ECE region, in particular in Eastern Europe, the Caucasus and Central Asia. A similar project, entitled “Support to the implementation of the Convention on Long Range Transboundary Air Pollution (CLRTAP) in the Eastern Europe, the Caucasus and Central Asia (EECCA) region“, co-funded by the European Commission, Germany, the Netherlands, Sweden and Switzerland was carried out in parallel from 2013 to 2018.

At its thirty-second session the Executive Body for the Convention adopted its 2014-2015 workplan (ECE/EB.AIR/122/Add.2)¹⁷, which includes a section on capacity-building to promote ratification and implementation in the region. Subsequent workplans also included a section on capacity-building (2016-2017: ECE/EB.AIR/133/Add.1¹⁸ and 2018-2019: ECE/EB.AIR/140/Add.1¹⁹). The Executive Body and the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) have been evaluating the progress under the project at their annual sessions.

On the basis of priority needs identified by EECCA countries, several activities were implemented, such as workshops on the development of emission inventories, sub-regional workshops on a) projections development and emission reduction targets estimation and b) steps towards ratification and implementation, and support to the activities of the Coordinating Group aimed at capacity-building or information exchange among its participating countries. The Project contributed to the Sustainable Development Goal targets related to air quality management, i.e. target 3.9, target 11.6, and 12.

Activities were implemented in Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. The project was implemented by UNECE. The Air unit in the UNECE Environment Division was a leader and project coordinator.

IV. Issues

The evaluation will answer the following questions:

Relevance

1. How relevant was the project to the specific needs and priorities of the beneficiary countries in the area of the air quality management?
2. To what extent was the project related to the UNECE programme of work?
3. To what extent was the project design and development intervention relevant for meeting the project objective?

Effectiveness

4. To what extent were the expected accomplishments of the project achieved?
5. What were the challenges/obstacles to achieving the project objective and expected accomplishments?
6. To what extent did the implementation of the project support the expected accomplishments of the UNECE regular programme of work under the Subprogramme 1 “Environment”?
7. To what extent did the implementation of the project contribute to the overall objective of the Air Convention?

Efficiency

8. Did the project achieve its objectives within the anticipated budget and allocation of resources?
9. Were the resources (financial and human) appropriate to the design the project?

¹⁷ See:

http://www.unece.org/fileadmin/DAM/env/documents/2013/air/eb/ECE_EB.AIR_122_Add.2_advance_version.pdf

¹⁸ See : http://www.unece.org/fileadmin/DAM/env/documents/2015/AIR/EB/ece.eb.air.133_add1_E.pdf

¹⁹ http://www.unece.org/fileadmin/DAM/env/documents/2018/Air/ece.eb.air.140.add.1-Final-Advance_copy.pdf

10. Were the activities implemented according to the planned timeframe?

Sustainability

11. To what extent will the results of the project continue after completion of the project in the beneficiary countries?
12. How is the stakeholders' engagement likely to continue in the beneficiary countries?
13. To what extent the key national air quality management institutions are ready to take over and have required capacities to sustain the project results?

V. Methodology

The evaluation will be conducted on the basis of:

1. A **desk review** of all the relevant documents obtained from project files including:
 - Programmes and materials (presentations, background documents) developed for national and regional workshops as well as lists of participants;
 - Reports of workshops;
 - Project webpage;
 - Data reported under the Convention;
 - Progress reports (for 2015, 2016 and 2017).
2. An electronic **questionnaire** will be developed by the consultant to assess the perspective of the beneficiary countries, after consultation with UNECE.
3. This questionnaire will be followed by **selected interviews** (methodology to be determined by the evaluator in consultation with UNECE). The interviews will take place via phone and Skype. The UNECE project manager will provide the list and contact details.

The evaluation report of maximum 15-20 pages (excluding annexes) will summarize the findings, conclusions and recommendations of the evaluation. An executive summary (max. 2 pages) will summarize the methodology of the evaluation, key findings, conclusions and recommendations.

The evaluation will be conducted in accordance with the UNECE Evaluation Policy. The consultant shall be provided the evaluation report templates and guidance for the requirements for evaluation reports in UNECE. The evaluation will comply with the UNEG Norms and Standards, including due consideration of the gender aspects of the project's design and implementation. UNECE will provide all documentation as needed throughout the timeline of the evaluation. UNECE will provide support and further explanation to the evaluator as needed.

VI. Evaluation Schedule

1. Desk review of all documents provided by UNECE to the evaluator (1 January 2019)
2. Delivery of inception report including design of survey (15 January 2019)
3. Feedback on inception report by the project manager (22 January 2019)
4. Launching the survey (28 January 2019)
5. Conducting in-person and telephone interviews (28 January - 18 February)
6. Analysis of collected information (18 February- 4 March 2019)
7. Draft report (18 March 2019)
8. Comments back to the evaluator after review by the project manager and the PMU (27 March 2019)
9. Final report (3 April 2019).

VII. Intended Use/Next Steps

The evaluation results will be used in the planning and implementation of future similar projects. The findings of the evaluation will inform follow up actions and guide initiatives already started and required to disseminate the knowledge created and enhance its use. The outcomes of the evaluation will also contribute to the broader lessons learned of UNECE projects, by being made available on the project website (UNECE sub-page).

The evaluation will be consistent with the UNECE Evaluation Policy. Following the receipt of the final report, UNECE will develop a management response, and action plan for addressing recommendations made by the consultant. The results of the evaluation shall be considered, together with other project evaluations conducted during 2018, by senior management in UNECE to address systemic inefficiencies or challenges to effective project implementation in UNECE.

VIII. Criteria for Evaluators

Evaluators should have:

- An advanced university degree or equivalent background in relevant disciplines
- Specialized training in areas such as evaluation, project management, social statistics, advanced statistical research and analysis.
- Demonstrated relevant professional experience in design, management and conduct of evaluation processes with multiple stakeholders, survey design and implementation, and project planning, monitoring and management.
- Demonstrated methodological knowledge of evaluations, including quantitative and qualitative data collection and analysis for end-of-cycle project evaluations.
- Fluent in written and spoken English. Knowledge of Russian is desirable (for the purpose of being able to seek inputs from national authorities in their native tongue).

Evaluators should declare any conflict of interest to UNECE before embarking on an evaluation project, and at any point where such conflict occurs.

Annex B: List of Reviewed Documents

1. Annual Implementation Reports, 2015, 2016, 2017
2. RF Approval of the Project Extension and Budget Modification
3. Final Project Report (2015-2018)
4. Letter from Mr. Bach (UNECE) to Mr. Abdusamatov, Chair of the State Committee for Narute Protection of Uzbekistan 2016/OES/354/ENV/769 dated 21 October 2016 re: readiness for a mission
5. Kyrgyzstan, 2016 -Mission Report (in Russian and English), LoP, Questionnaires;
6. Kyrgyzstan, 2018 Mission Report (in Russian and English), LoP, Questionnaires;
7. Armenia: 2016 Mission Report (in Russian and English), LoP, Questionnaires
8. Armenia, 2018 Mission Report (in Russian and English), LoP, Questionnaires;
9. Kazakhstan, 2017 Mission Report (in Russian and English)LoP, Questionnaires;
10. Tajikistan, 2017 Mission Report (in Russian and English), LoP, Questionnaires
11. Tajikistan, 2018 Mission Report (in Russian and English); LoP, Questionnaires
12. Azerbaijan, 2017 Mission Report (in Russian and English), LoP, Questionnaires
13. Uzbekistan, 2018, Mission Report (in Russian and English), LoP, Questionnaires
14. [Documents of the «Saltsjöbaden» workshop, publication Clean Air for a Sustainable Future – Goals and Challenges by Nordic Council of Ministers, with recommendations for target countries](#)(March 2018)
15. [Documents and findings of the 19th Joint EIONET & UNECE Task Force on Emission Inventories & Projections Meeting in Sofia](#) (April 2018)
16. Documents of the Meeting of the EECCA Coordinating Group and joint workshop with the Task Force on Techno-Economic Issues under the LRTAP Convention (Sept. 2018, Saint-Petersburg)<http://www.unece.org/index.php?id=49100>
17. Meeting of the EECCA Coordinating Group and joint workshop with the Task Force on Techno-Economic Issues under the UNECE Convention (Oct. 2016, Saint-Petersburg), LoP
18. [Working Group on Effects brochure](#)(updated July 2018)

Annex C: Stakeholders Targeted with Online Survey and/or KIIs

No	Country	First Name	Last Name	CLRTAP contact person	Selected joint meetings/Workshops			KII
					TFEIP Sofia, Bulgaria, Apr 2018	EECCA CG, St. Petersburg		
						Sept 2018	Oct 2016	
1	Azerbaijan	Durdana	Madatova		Yes			
2		Tofiq	Hasanov			Yes		
3		Mehman	NABIYEV	yes				Yes
4		Faig	Mutallimov	yes				
5		Sadig	Shiraliyev	yes				
6	Armenia	Kristina	Hakobyan			Yes		
7		Gayane	Shahnazaryan	yes		Yes		
8		Anjela	Turlikyan	former				Yes
9	Belarus	Sergey	Kakareka		Yes	Yes		Yes
10		Andrey	Pilipchuk	former				
11		Oksana	Yuchkovich	Yes				Yes
12	Georgia	Noe	Megrelishvili	yes	Yes			Yes
13	Kazakhstan	Zinagul	Tastambekova	Yes		Yes		Yes
14		Zhaneldyk	Akhmadiyeva		Yes			
15		Zulfukhar	Zholdassov	Yes				Yes
16		Irina	Yeserkepova	former			Yes	
17	Kyrgyzstan	Omurbek	Musakanov			Yes		
18		Aida	Syrgakova	Yes	Yes	Yes		
19		Zhamalkan	Kadoeva	Yes				
20	Republic of Moldova	Raisa	Leon			Yes		
21		Veronica	Lopotenco	yes		Yes		Yes
22		Ala	Cojocararu		Yes		Yes	
23		Violeta	Balan	yes				Yes
24		Maria	Bors	former				
25	Russian Federation	Alexander	Romanov	yes	Yes	Yes	Yes	Yes
26		Irina	Morozova		Yes		Yes	Yes
27		Iuliia	Ignateva		Yes	yes	Yes	Yes
28		Sergey	Vasiliev	yes		Yes		Yes
29	Ukraine	Yuliia	Rymarieva	yes	Yes			
30		Natalia	Pavlenko	former				Yes
31		Lilia	Kozak	former				Yes
32	Uzbekistan	Naila	Rustamova	yes		Yes		Yes
33		Anvar	Shabanov	yes		Yes		
34		Nadejda	Dotsenko	yes				Yes
35	Tajikistan	Idullo	Sharipov			Yes		
36		Khasan	Sherov			Yes		
37		Shakhlo	Azizbekova	yes				Yes
38		Saidismon	Sudurov	yes			Yes	Yes
39	Switzerland	Kordzakhia	Ketevan		Yes			Yes

Annex D: Expected Accomplishments, Key Milestones and Sources of Validation

PLANNED	DESCRIPTION/MILESTONES	VALIDATION
Expected Accomplishment 1 (EA1)	Emission inventories developed in countries of Eastern Europe, the Caucasus and Central Asia in accordance with the Guidelines for estimating and reporting emission data under the Convention and the EMEP/EEA Air pollutant emission inventory guidebook	
Main Activity A 1.1. Nine (9) missions involving Russian-speaking experts for the purpose of training and providing assistance to national teams of experts in development of national emission inventories, including the development of activity database, preparation of Informative Inventory Report, estimating base year emission levels, and future projections in accordance with the guidance documents adopted under the Convention	In accordance with the workplans for the implementation of the Convention for 2016-2017 and 2018-2019, as well as the project implementation plan, workshops were organized to support national experts in EECCA countries in developing (Phase I) and in further improving (Phase II) their national emission inventories. In accordance with the needs expressed by countries, the trainings were organized in Kyrgyzstan (April 2016; June 2018), Armenia (October 2016; June 2018), Kazakhstan (June 2017), Tajikistan (October 2017; July 2018), Azerbaijan (November 2017) and Uzbekistan (November 2018). In 2018, all targeted Parties (Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan) reported their emissions to the Convention (submitted their NFR tables) and, in addition, 3 Parties (Armenia, Azerbaijan, Kyrgyzstan) submitted their Informative Inventory Report (IIRs). Skills of national experts of two non-Parties (Tajikistan, Uzbekistan) in developing of national emission inventories in accordance with the requirement of the Convention were improved. The last one prepared their first draft NFR14 table and IIR in 2018.	All missions were validated through participants to the online survey and participant lists from several missions Report submission data from UNECE
Expected Accomplishment 2 (EA2)	Promotion of ratification and implementations of the Convention and its key Protocols	
Main Activity A 2.1. Two sub-regional workshops on a) projections development and emission reduction targets estimation and b) steps towards ratification and implementation	a) UNECE supported thirteen representatives (seven of them female) from EECCA countries to participate in the sixth “Saltsjöbaden” workshop held in Gothenburg, Sweden (19-21 March 2018). To facilitate the discussion and to allow participants to focus on particular issues of ratification in the sub-region, a questionnaire was elaborated by the secretariat and sent out prior to the workshop to target countries. Eight recommendations were elaborated and presented by the group to the plenary session. b) UNECE supported ten experts (seven of them female) from EECCA countries to participate in the annual meeting of the UNECE Task Force on Emission Inventories and Projections (TFEIP) held in Sofia (Bulgaria) (25-27 April 2018).	55% of respondents validated their participation in either one or both. Qualitative responses to online survey provided additional level of detail.
Expected Accomplishment 3 (EA3)	Enhanced outcomes of the work of the Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia	
Main Activity A 3.1. Support to the activities of the Coordinating Group aimed at capacity-building	The Coordinating Group on the promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia was established in accordance with Executive Body decision 2010/17	30% of participants confirmed their participation in the

PLANNED	DESCRIPTION/MILESTONES	VALIDATION
<p>or information exchange among its participating countries.</p>	<p>(ECE/EB.AIR/106), and the organization of meetings of the Coordinating Group has been supported throughout the project implementation period:</p> <ul style="list-style-type: none"> - Support in organizing the meetings on the margins of regular sessions of the Convention's Executive Body and the Working Group on Strategies and Review - Meeting of the Group in St-Petersburg held back-to-back with a joint workshop co-organized with the Task Force on Techno-Economic Issues (TFTEI) in 2016 (19-20 October), attended by 23 participants. - A joint meeting of the EECCA Coordinating Group and TFTEI was organized in St. Petersburg in 2018 (19-20 September). Representatives of eight EECCA countries (thirteen participants; seven of them female) exchanged information on progress and ratification status. During the workshop supported by TFTEI, an overview of the guidance documents on VOC emissions accounting developed by TFTEI, the ERICCa (Emissions Reduction Investment and Cost Calculation Methodology) tool, the TFTEI-managed Clearing House on BAT, and the guidance document on small combustion and residential fuel burning were discussed. - Brochure of the Working Group on Effects was translated from English into the Russian language 	<p>activities under the Air Convention</p> <p>69% of participants confirmed their participation in a meeting in St Petersburg in 2018, with qualitative reference to 2016</p> <p>63% of participants confirmed their participation in the meeting in Bulgaria in 2018</p> <p>Brochure presented as part of evaluation documentation</p>

Annex E: Online Survey Questionnaire

1) What is your country of residence?

- Armenia
- Azerbaijan
- Kazakhstan
- Kyrgyzstan
- Tajikistan
- Russia
- Uzbekistan

2) What is your gender? M/F

3) What is your affiliation?

- National Ministry of Ecology and Natural Resources/ Nature protection/ Environment Protection and Forestry agency/Energy
- National Statistical Ministry/Agency
- National Hydrometeorology Agency
- Other National Ministry/Agency (Transport, Industry and New Technologies, Justice, Internal Affairs)
- Joint-Stock Company (for example, JSC ZhasylDamu, Kazakhstan)
- City or Municipal government agency
- Independent expert/consultant

4) Are you familiar with UNECE project “Strengthening the implementation of the UNECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia”

Yes/No (Skip)

5) How have you engaged with UNECE since 2015? (multiple responses)

- Participated in NFR/IIR/Gridding training on emission inventories conducted in my country
- Current member of the CLRTAP
- Former member of the CLRTAP
- Participated in EECCA CG Groups meeting (Sofia) in St. Petersburg;
- Participated in sub-regional workshops under the CLRTAP
- Engaged with UNECE staff during their mission to my country

6) How relevant has UNECE work been to the specific needs and priorities of *your country* in the area of the air quality management?

Extremely relevant -fairly relevant – marginally relevant- not relevant at all

7) How relevant has UNECE work been to the specific needs and priorities of *your sub-region* (Eastern Europe, the Caucasus and Central Asia) in the area of the air quality management?

Extremely relevant -fairly relevant – marginally relevant- not relevant at all

8) Were the activities implemented according to the planned timeframe between your country and UNECE?

Yes/No (Skip)

9) What were the reasons behind delays or any other inefficiencies? (Open box)

10) Which training(s) and capacity building activities did you participate in since 2014?(more than one option available)

- | | | |
|---|----------------------|------------------------------------|
| • Meeting of the Coordinating Group and the joint workshop with the Task Force on Techno-Economic Issues under the Convention | 19-20 September 2018 | St. Petersburg, Russian Federation |
| • Workshop on emission inventories | 9-11 July 2018 | Dushanbe, Tajikistan |

- Follow-up workshop on emission inventories 26-28 June 2018 Bishkek, Kyrgyzstan
- Follow-up workshop on emission inventories 6-8 June 2018 Yerevan, Armenia
- Workshop for EECCA countries at the meeting of the Task Force on Emission Inventories and Projections (TFEIP) 25-27 April 2018 Sofia, Bulgaria
- Workshop on emission inventories 28-30 November 2017 Baku, Azerbaijan
- Workshop on emission inventories 25-26 October 2017 Dushanbe, Tajikistan
- Consultation meeting on reporting requirements under the Convention 28-29 June 2017 Almaty, Kazakhstan
- Consultation meeting on preparation of inventory reports under the Convention 10-14 October 2016 Yerevan, Armenia
- Workshop on emission inventories 13–15 April 2016 Bishkek, Kyrgyzstan
- Meeting of the Coordinating Group and the joint workshop with the Task Force on Techno-Economic Issues under the Convention 19-20 October 2016 St. Petersburg, Russian Federation

11) What was your level of familiarity with the topics before the training(s)/ engagement with UNECE?

- Novice
- Mid-career

	Relevant/pertinent thematically	Timely for your country	Practical/ useful	Not applicable
<ul style="list-style-type: none"> - Introduction to the Guidelines for reporting emissions and projections data under the Convention on Long-range Transboundary Air Pollution - Preparation and filling in emission data tables (NFR) - Calculating emissions from mobile sources - Preparation of the Informative Inventory Report (IIR) - Introduction to the activities on pollutant emissions mapping (gridding emissions); - Introduction to the EMEP/EEA air pollutant emission inventory guidebook. - recommendations on estimating emission reduction targets and projections - Sharing experience and information on air pollution abatement measures and Guidelines - <i>Other?</i> 				

12) Were you able to use any of the knowledge and skills in your job since participating in at least one of the activities? Yes/No- *Skips*

13) Can you describe how you have applied acquired knowledge/skills in your job(what, when, with whom)? *(Open box)*

14) Why have you not been able to use the knowledge and skills in your job?

- Lack of supporting materials
- Poor quality of trainings
- Management is not supportive
- Not timely/relevant
- No confidence in use of data for decision-making
- No data available
- Low data quality
- Country not party to Convention
- *Other?*

15) To what extent did the training provided under UNECE project contribute to the overall objective of implementing the UNECE Air Convention in your country? (4 point scale)
Extremely relevant -fairly relevant – marginally relevant- not relevant at all

- 16) To what extent do you believe the key national air quality management institution in your country/region is ready to take over and has required capacities to sustain the project results? *(4 point scale)*
- 17) Explain your answer *(Open box)*
- 18) To what extent will the benefits of UNECE assistance continue after completion of the project (2018) in your country/region?
Extremely likely -fairly likely – marginally likely- not likely at all
- 19) Explain your answer *(Open box)*
- 20) How likely are you to stay engaged with stakeholders' in your region post series of UNECE supported capacity building activities?
Extremely likely -fairly likely – marginally likely- not likely at all
- 21) Which of the tools/platforms for peer-to-peer support, exchange of information have you already used?
- Meetings in Geneva
 - Meetings/events on the regional level
 - Web-based platform
 - Direct email communication to exchange of reports/best-practices
 - Conference calls to exchange of reports/best-practices
- 22) How effective and useful has this engagement been?
Extremely helpful/useful -fairly helpful/useful – marginally helpful/useful- not helpful/useful at all
- 23) What suggestions (s) do you have to enhance the quality of engagement, for sustaining results of UNECE activities related to Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia? *(Open box)*
- 24) Please select most pressing activities that can facilitate ratification of the Protocols? *(multiple answers are possible, max. 5)*
- Analysis of gaps in national policies and legislation in the field of air quality management in terms of the provisions of the key Protocols;
 - Support in identifying possible steps towards ratification and implementation of the key protocols to the convention (Roadmap/National Action Plan);
 - Recommendations on possible adjustments to national legislation regarding the introduction and implementation of ELVs/BATs including implementation of integrated environmental permits;
 - Sharing experience on introduction and implementation of BATs
 - Sharing experience on other abatement and cost-effective measures in various sectors;
 - Support in further improvement of national emission inventories in accordance with the EMEP/EEA air pollutant emission inventory Guidebook and the Guidelines for estimating and reporting emission data under the Convention;
 - Support in preparation of Informative Inventory Reports (IIR), as outlined in the Guidelines for estimating and reporting;
 - Support in the calculation of gridded emissions (advice on data collection, processing and reporting on gridding emissions, as outlined in the Guidelines for reporting);
 - Support in estimating base year emission levels and reduction targets for 2020+, making respective projections;
 - Support in enhancing the understanding of GAINS (Greenhouse Gas – Air Pollution Interactions and Synergies) model to develop cost-effective emission control strategies, including emission projections;
 - Support in enhancing the understanding of COPERT software programme aiming at the calculation of air pollutant emissions from road transport.;
 - Raising awareness among decision-makers on the political profile of the Air Convention, on the environmental and health effects of air pollution;
 - Increase international political pressure to ratify the protocols to the Convention;
 - Flexible mechanisms for stepwise ratification of the protocols to the Convention.
 - Other?

Thank you for your time and attention. Please let us know if you would like to have an interview.
Leave your email address.

Annex E: Key Informant Interview Questionnaire

To be adapted for selected groups and individuals as necessary, depending on the preliminary results of online survey:

- (1) participants of national/regional trainings/workshops from selected beneficiary countries,
- (2) regional and international participants of expert and joint meetings,
- (3) CLRTAP Focal Points.

Background Information

- 1) What is your current job, affiliation?
- 2) **Are you familiar with UNECE mission? What about UNECE Convention on Long-Range Transboundary Air Pollution?** (*PROBE: origins, age, members, etc?*)
- 3) **Since 2015**, how have you been engaged with UNECE project “Strengthening the implementation of the UNECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia”
PROBE:
 - Participated in NFR/IIR/Gridding training conducted in my country
 - Participated in the regional meetings (St Petersburg, Sofia)
 - Current/former Member of the CLRTAP
 - Engaged with UNECE staff during their mission to my country
 - Other?
- 4) **How has your participation and engagement been funded?** *PROBE: UNECE, national government, etc*

Relevance

1. How relevant was the project to the specific needs and priorities of the beneficiary countries in the area of the air quality management?
2. To what extent was the project related to the UNECE programme of work?
3. To what extent was the project design and development intervention relevant for meeting the project objective?

- 5) How relevant has UNECE work been to the specific needs and priorities of *your country*, and/or other target countries in air quality management?
- 6) How relevant has UNECE work been to the specific needs and priorities of *your region* as a whole in the area of the air quality management?
- 7) How relevant have been UNECE work in the area of the air quality management to contribute to **gender equality and/or to the improvement of the quality of life/health of the most vulnerable groups?**²⁰ (*Probe, outdoor: equal rights on clean air, pregnant women, urban_rural differences; Indoor Pollution - Due to household responsibilities, women are disproportionately exposed to indoor air pollution*)

²⁰<http://ftp.iza.org/dp10628.pdf> “contemporaneous and cumulative exposure to air pollution impedes both verbal and math scores of survey subjects. Interestingly, the negative effect is stronger for men than for women. Specifically, the gender difference is more salient among the old and less educated in both verbal and math tests.”

Effectiveness

1. To what extent were the expected accomplishments of the project achieved?
2. What were the challenges/obstacles to achieving the project objective and expected accomplishments?
3. To what extent did the implementation of the project support the expected accomplishments of the UNECE regular programme of work under the Subprogramme 1 "Environment"?
4. To what extent did the implementation of the project contribute to the overall objective of the Air Convention?

Efficiency

5. Did the project achieve its objectives within the anticipated budget and allocation of resources?
6. Were the resources (financial and human) appropriate to the design the project?
7. Were the activities implemented according to the planned timeframe?

8) Activities/engagements with UNECE, that you mentioned above, were they always implemented successfully (accomplished objectives) and in the planned timeframe? (*PROBE, timelines for training, response rate from targeted participants, etc*)

9) Where there delays? IF SO, what were the reasons for delays?

10) Which factors facilitating OR inhibited achievement of objectives and efficiency? (*PROBE: who, how*)

11) Since 2015, how many and which training(s) and capacity building activities did you participate in? (*FOR PROBING*)

- | | | |
|---|----------------------|------------------------------------|
| • Meeting of the Coordinating Group and the joint workshop with the Task Force on Techno-Economic Issues under the Convention | 19-20 September 2018 | St. Petersburg, Russian Federation |
| • Workshop on emission inventories | 9-11 July 2018 | Dushanbe, Tajikistan |
| • Follow-up workshop on emission inventories | 26-28 June 2018 | Bishkek, Kyrgyzstan |
| • Follow-up workshop on emission inventories | 6-8 June 2018 | Yerevan, Armenia |
| • Workshop for EECCA countries at the meeting of the Task Force on Emission Inventories and Projections (TFEIP) | 25-27 April 2018 | Sofia, Bulgaria |
| • Workshop on emission inventories | 28-30 November 2017 | Baku, Azerbaijan |
| • Workshop on emission inventories | 25-26 October 2017 | Dushanbe, Tajikistan |
| • Consultation meeting on reporting requirements under the Convention | 28-29 June 2017 | Almaty, Kazakhstan |
| • Meeting of the Coordinating Group and the joint workshop with the Task Force on Techno-Economic Issues under the Convention | 19-20 October 2016 | St. Petersburg, Russian Federation |
| • Consultation meeting on preparation of inventory reports under the Convention | 10-14 October 2016 | Yerevan, Armenia |
| • Workshop on emission inventories | 13-15 April 2016 | Bishkek, Kyrgyzstan |

12) Which of the topics covered did you find most interesting and pertinent (to teach/ to be taught)? Why? (*PROBE: Relevant/pertinent thematically for your work, Timely for your country, region, personally development, Practical, etc? (list for probing)*)

- *Introduction to the Guidelines for reporting emissions and projections data under the Convention on Long-range Transboundary Air Pollution*
- *preparation and filling in emission data tables*
- *calculating emissions from mobile sources*
- *preparing data gridding*
- *preparation of the Informative Inventory Report*
- *Introduction to the activities on pollutant emissions mapping;*
- *Introduction to the EMEP/EEA air pollutant emission inventory guidebook.*
- *OTHER topics/themes?*

13) Have you been able to use applied acquired knowledge/skills in your job since the last training
IF YES: (*PROBE: what, when, with whom?*)

14) IF NO: Why have you not been able to use the knowledge and skills in your job?

- *Lack of supporting materials*
- *Poor quality of trainings*
- *Management is not supportive*
- *Not timely/relevant*
- *No confidence in use of data for decision-making*
- *No data available*
- *Low data quality*
- *Country not party to Convention*
- *Other?*

15) To what extent did the training and mentoring provided under UNECE project contribute to the overall objective of implementing the UNECE Air Convention in the target countries/ your country/region? What were the most successful elements? (*PROBE: UNECE overall approach, consultant trainers, regional workshops, materials, peer-to-peer engagement, etc?*)

Sustainability

1. *To what extent will the results of the project continue after completion of the project in the beneficiary countries?*
2. *How is the stakeholders' engagement likely to continue in the beneficiary countries?*
3. *To what extent the key national air quality management institutions are ready to take over and have required capacities to sustain the project results?*

16) Have you been engaged with stakeholders (colleagues, peers)' in your region as a result of the UNECE supported capacity building activities? Why and how?

17) Which of the tools/platforms for peer-to-peer support, exchange of information have been *most or least* useful? Why?

PROBE:

- *Meetings in Geneva*
- *Meetings/events on the regional level*
- *Web-based platform*
- *Direct email communication to exchange of reports/best-practices*
- *Conference calls to exchange of reports/best-practices*
- *OTHER?*

18) To what extent do you believe the key national air quality management institution in your country/region as a whole is ready to take over and has required capacities to sustain the project results? Why yes/no? (*PROBE: resources for updating skills, language barriers, etc*)

- 19) To what extent will the benefits of UNECE assistance continue after completion of the project (2018) in your country/region? What are the necessary conditions for it to continue? Who will be responsible and for what?
- 20) Is there anything else you would like to mention for UNECE and stakeholders to consider in strengthening the implementation of the UNECE Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia?

Thank you for your time and attention.